

REMARKS

Before addressing the rejections, Applicants would like to briefly summarize their inventive contribution to the art. The present invention is directed to a film that can be coated with an additive, which is transferred to a product during cook-in, while avoiding the handling, waste, inefficiency, and contamination generated by the conventional steps of unpackaging, smoking, and repackaging as described in the BACKGROUND of the subject application. The claimed film resulted from the discovery that films can be uniformly coated with certain binders in a form which are resistant to dissolution during the conditions of use. Such binders, together in some embodiments with a crosslinking agent, facilitate the initial adhesion of the additive to the film, control the rate of release of the additive to a packaged food product, and also provide for the adherence of the coating to the food product during the cook-in step. (See, e.g., page 4, lines 10-15 of the application).

The result is that the additive-containing coating is present on the film in a form which prevents or reduces smearing of the coating when, for example, a coated film casing is filled with the meat product. The coating also prevents or reduces the tendency of the additive to flow when the product is cooked inside of the casing, which would otherwise result in an uneven distribution of the additive. This is because the binders as described in the claims hold the additives securely prior to cooking, but then release the additives during cook-in, so that the meat product is flavored/colored in a desired manner and degree, without having to unpackage, treat, and repackage the product. (Page 4, lines 15-21 of the application).

Claims 40-58 stand rejected under 35 USC §103(a) as being unpatentable over Gribbin et al. (US Pat. No. 4,942,088) in view of Lundquist et al. (US Pat. No. 2,410,089).

Gribbin is directed to a reclaimable polyester film with an adhesion-promoting coating (abstract). The coating is a polymerizate of a carboxy-functional polymer with additional epoxy groups, and at least one copolymerizable α - β -olefinic unsaturated monomer (col. 3, lines 16-25). The coating may further include protective colloids and additives such as antioxidants (col. 3, lines 52-55; col. 9 lines 1-2). A light-sensitive coating may be applied to the adhesion-promoting coating to form a reprographic film (col. 9, lines 41-46). The light-sensitive coating may include a resinous binder such as cellulose acetate (col. 9, lines 46-52).

Lundquist discloses a coating of a pressure-sensitive adhesive formed by the copolymerization of vinyl acetate with esters of maleic acid and/or fumaric acid (col. 1, lines 1-5; col. 2, lines 6-10; col. 2, lines 42-46; col. 3, lines 41-44). The copolymerization reaction may be carried out via an emulsion reaction whereby the reaction products are obtained in a dispersed form (col. 3, lines 44-47). In this case, a small amount of protective colloid, e.g., methyl cellulose or gelatin, may be added to stabilize the dispersion. The dispersion is subsequently wet-coated onto a paper or other backing material, and then dried to produce a dry pressure-sensitive adhesive sheet (see, e.g., Example 1).

The Office takes the position that it would have been obvious to use gelatin or cellulose, as taught by Lundquist, in the coating composition of Gribbin, for the purpose of enhancing stabilization of the adhesive composition.

In response, Applicants point out that neither Gribbin or Lundquist teach or suggest an additive-transfer film that transfers a food

additive to a food product enclosed in the film during cooking. Given the end-use applications for which the Gribbin and Lunquist films are intended (reprographic film and pressure-sensitive adhesive film, respectively), the transfer of anything from the film to another object would be highly undesirable.

In order to clarify this aspect of the present invention, independent claims 40 and 53 have been amended to specify that the claimed multilayer films are “additive-transfer film[s] suitable for cook-in processing of food products.” The claims have also been amended to specify that “during cooking of a food product surrounded by said multilayer additive-transfer film, at least a portion of said binder composition and said additive in [the outermost] layer are transferred from [the outermost] layer to the food product.” Support for the amendments may be found in the specification generally and, more specifically, at page 3, lines 17-28.

In view of the foregoing amendments, Applicants submit that the claims are patentable over the combination of Gribbin and Lunquist. That is, the claims as amended now recite features that are neither taught nor suggested in either reference, whether taken alone or in combination, because neither reference discloses the transfer of an additive from the film to a product surrounded by the film during cooking.

In addition to the foregoing, claim 40 is patentable for another reason. Specifically, claim 40 calls for the inclusion of at least one of the enumerated “additive[s]” in the “third” layer. The enumerated additives recited in claim 40 are “flavor, fragrance, colorant, antimicrobial agent, antioxidant, chelating agent, and odor absorbent” additives. The “third” layer is the outermost layer of the film because, as recited in claim 40, “the first layer is positioned between the second and third layers.”

Claim 40 thus describes the following multilayer structure, in the order shown:

"third" (outermost) layer:	<u>binder + additive</u>
"first" (primer) layer:	<u>binder + crosslinking agent</u>
"second" (base) layer:	<u>thermoplastic polymer</u>

In contrast, the film disclosed in **Gribbin** has the following structure, in the order shown (wherein the same terms are used to describe such film for ease of comparison, even though different terms are used in the Gribbin reference):

"third" (outermost) layer:	<u>binder + "X"</u>
"first" (primer) layer:	<u>crosslinking agent + colloid + antioxidant</u>
"second" (base) layer:	<u>thermoplastic polymer</u>

wherein, "X" = a diazonium compound (col. 9, lines 41-53), particulate material such as Kaolin or SiO₂ (col. 9, lines 58-67), or pigments and dyes for printing (col. 10, lines 4-12).

However, the "X" materials disclosed by Gribbin for the outermost layer of the film do not include any of the "additives" recited in claim 40 for the "third" (outermost) layer.¹ This is to be expected since the film of Gribbin is not directed to an additive-transfer film as claimed, which transfers an additive to a food product enclosed in the film during cooking. This deficiency is not cured by the combination with Lunquist, which similarly fails to disclose any of the claimed additives in the outermost layer thereof.

¹ Although Gribbin discloses the use of antioxidants, such use is only for the "first" (primer) layer, not for the "third" (outermost) layer (see paragraph bridging cols. 9-10, and compare with discussion of "third" (outermost) layer at bottom of col. 9, beginning at line 41).

Accordingly, claim 40 is patentable over the combination of Gribbin and Lundquist for this additional reason.

Finally, claim 53 is also patentable over the Gribbins/Lunquist combination for a further reason in addition to the reason discussed above relative to the amendments to claims 40 and 53. Claim 53 calls for a first layer comprising a “binder composition” composed of two different binders. Specifically, the binder composition comprises a “first binder” and a “second binder”, wherein the “first binder” is selected from

alginate, methyl cellulose, hydroxypropyl starch, hydroxypropylmethyl starch, hydroxymethyl cellulose, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, carboxymethyl cellulose, cellulose esterified with 1-octenyl succinic anhydride, chitin, and chitosan,

and the “second binder” is selected from:


gliadin, glutenin, globulin, albumin, prolamin, thrombin, pectin, carrageenan, konjac flour-glucomannin, fibrinogen, casein, soy protein, whey protein, and wheat protein.

Such a “binder composition” as recited in claim 53 is neither taught nor suggested in Gribbin or Lundquist. Gribbin does not disclose any binder for the “first” (primer) layer. While Lundquist discloses a protective colloid material such as gelatin or methyl cellulose, it does not disclose the foregoing binder composition comprising two different binders as recited in claim 53.

Accordingly, Applicants respectfully submit that the combination of Gribbin and Lundquist does not meet all the limitations of claim 53 for at least this additional reason.

For all of the foregoing reasons, Applicant submits that all of the claims as currently presented are patentably distinct from the references of record and are, therefore, in condition for allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,


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